CARBOXAMIDE BRIDGING LIGAND IN SERIES OF PYRAZINAMIDE ANALOGUES, THEIR SYNTHESIS AND BIOLOGICAL EVALUATION

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Pyrazine ring is present in numerous drugs. The first of them was pyrazinamide, the first-line antitymocobacterial agent. From our laboratory, the synthesis of pyrazines carrying amide function and their promising antibacterial and antifungal activity have been reported [1]. Various compounds possessing -NHCO- moiety were found to inhibit photosynthetic electron transport. Amides of 2-alkylpyridine-4-carboxylic [2], 2-alkylsulfanylpyridine-4-carboxylic [3] acids inhibited oxygen evolution rate in *Chlorella vulgaris* and their inhibitory activity depended on the lipophilicity of the compounds. We have recently reported the synthesis of a series of amides prepared from the substituted pyrazine-2-carboxylic acids and some aminophenols [4], halogenated and alkylated anilines [5]. All these amides possess some antialgal, antifungal, and antimycobacterial properties. The presented study is concerned in the synthesis of another series of amides prepared via anilinolysis of substituted pyrazin-2-carboxylic acid chlorides with alkoxyalted, hydroxylated and/or halogenated anilines. The aim of this work is to search for the structure—activity relationships in the mentioned series, i.e. to continue in studying of the substituent variability influence on the biological activity, and to determine the importance of increased hydrophobic properties for photosynthesis-inhibiting, antifungal and antimycobacterial evaluation of substituted pyrazine-2-carboxamides.

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